

VERSION WITH MARKINGS TO SHOW CHANGES MADEIN THE CLAIMS:

1                   1.     (Amended) A system for treating combustion exhaust gas,  
2     which system comprising: a catalyst effective to promote oxidation of at least NO  
3     to NO<sub>2</sub>; a filter downstream of the oxidation catalyst, which filter being effective to  
4     collect soot and hold it for combustion reaction with the NO<sub>2</sub> in the gas; a NO<sub>x</sub>  
5     absorber downstream of the filter, which NO<sub>x</sub> absorber is charged with solid  
6     adsorbent; means for introducing intermittently a regenerant of the absorber, which  
7     means being effective to inject a NO<sub>x</sub>-specific reactant upstream of the absorber;  
8     and[, associated with and/or downstream of the absorber,] a catalyst system  
9     effective to promote reactions of hydrocarbons (HC) and CO with O<sub>2</sub> to H<sub>2</sub>O and  
10    CO<sub>2</sub> and to treat NO<sub>x</sub> to N<sub>2</sub>, wherein said catalyst system is at least one of: (1)  
11 associated with the absorber; or (2) located downstream of the absorber.

1                   4.     (Amended) A system according to claim 1, [2 or 3,] wherein  
2     the NO<sub>x</sub> absorbent comprises at least one of: (a) compounds of alkali metals,  
3     alkaline earth [metal] metals, rare earth metals and transition metals or a mixed  
4     oxide of any two or more thereof; [and/or] and (b) zeolites, carbons and/or high  
5     surface area oxides.

1                   5.     (Amended) A system according to claim 4, wherein the  
2     mixed oxide [includes] is selected from the group consisting of Ba-Cu-O[,] and  
3     MnO<sub>2</sub>-BaCuO<sub>2</sub>[, optionally including CeO<sub>2</sub>, Y-Ba-Cu-O or Y-Sr-Co-O].

1                   6.     (Amended) A system according to [any of claims] claim 1 [to  
2     5], wherein the catalyst system comprises at least one of vanadia/titania [and/or]  
3     and one or more platinum group metal.

1                   7.     (Amended) A system according to [any of claims] claim 1 [to  
2     6], wherein the injection means is arranged to inject the reactant upstream of the  
3     filter.

1                   9.     (Amended) A system according to [any of claims] claim 1 [to  
2     6], wherein the injection means is arranged to inject the reactant downstream of the  
3     filter.

1                   10.    (Amended) A system according to [any preceding] claim 1,  
2    wherein the filter is catalysed.

1                   11.    (Amended) A system according to [any preceding] claim 1,  
2    wherein the injection means is for injecting ammonia, hydrazine, urea or aqueous  
3    urea solution.

1                   12.    (Amended) A system according to [any preceding] claim 1,  
2    further including sensors, indicators, computers and actuators, effective to maintain  
3    operation within desired conditions.

1                   14.    (Amended) A diesel engine including a system according to  
2    [any preceding] claim 1.

1                   15.    (Amended) An engine according to claim [8] 14, which is a  
2    turbo-charged direct injection engine.

1                   16.    (Amended) A process for treating combustion exhaust gas  
2    containing CO, hydrocarbons (HC), NO, O<sub>2</sub>, soot and non-reactive gases, [which  
3    process comprises] comprising the steps of: (i) catalysing oxidation of NO to NO<sub>2</sub>;  
4    (ii) collecting soot on a filter; (iii) combusting the collected soot by reaction with  
5    NO<sub>2</sub> [and possibly also O<sub>2</sub> left over after step (i)]; (iv) removing NO<sub>x</sub> from the  
6    product of step (iii) by contacting a regenerable NO<sub>x</sub> absorbent with gas containing  
7    [it] NO<sub>x</sub>; (v) regenerating the absorbent intermittently by injecting a NO<sub>x</sub>-specific  
8    reactant upstream of the absorbent; and (vi) at least during step (v), contacting a  
9    catalyst system effective to promote reactions of HC and CO with O<sub>2</sub> to H<sub>2</sub>O and  
10   CO<sub>2</sub> and to react NO<sub>x</sub> to N<sub>2</sub> with the gas [the] product of step (v).

1                   18.    (Amended) A process according to claim 16 [or 17], wherein  
2    the NO<sub>x</sub>-specific reactant is ammonia or hydrazine and is injected as such [and/or]  
3    or as a precursor compound decomposable thereto *in situ*.

1                   19.    (Amended) A process according to claim [16, 17 or] 18,  
2    wherein the precursor is urea or aqueous urea solution.

1                   20.    (Amended) A process according to claim 16[, 17, 18 or 19],  
2    wherein the exhaust gas is the product of combustion of fuel containing less than 50  
3    ppm w/w of sulphur.

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- 1 21. (Amended) A process according to [any of claims] claim 16
- 2 [to 20], operated in compliance with the European Stage IV emission legislation.

Claims 22 and 23 have been added.

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